

LISTING OF AMENDED CLAIMS

The listing of claims below replaces all prior versions, and listings, of claims.

Claim 1. (previously amended) A method for scheduling access to processor resources of a database, the method comprising the steps of:

initiating one or more database sessions each in response to one or more user logons to the database;

initiating a plurality of tasks in response to commands received from the one or more database sessions;

classifying each of the plurality of tasks into one of a first set of groups based at least in part on one or more logon account attributes associated with the one of the one or more database sessions that initiated that task;

assigning a weight to each group of the first set of groups;

classifying each of the plurality of tasks into one of a second set of groups;

assigning a weight to each group of the second set of groups;

selecting a first task from the plurality of tasks; and

limiting the first task's access to processor resources of the database based at least in part on the weight of a group from the first set of groups in which the first task is classified and also based at least in part on the weight of a group from the second set of groups in which the first task is classified.

Claim 2. (previously amended) The method of claim 1 where classifying each of the plurality of tasks into one of the second set of groups includes:

classifying each of the one or more database sessions into one of a third set of groups based at least in part on one or more logon account attributes associated with that database session;

assigning one or more time periods to each group of the third set of groups;

assigning one group from the second set of groups to each of the time periods;

determining the current time; and

classifying each task in a group from the second set of groups corresponding to the time period assigned to a group from the third set of groups in which

the database session that initiated that task is classified and that includes the current time.

Claim 3. (previously amended) The method of claim 1 where classifying each of the plurality of tasks in one of the first set of groups includes:

classifying each of the one or more database sessions into one of a third set of groups based at least in part on one or more logon account attributes associated with that database session;

associating each group in the third set of groups with one group of the first set of groups; and

classifying each task in a group from the first set of groups that is associated with a group from the third set of groups in which the database session that initiated that task is classified.

Claim 4. (previously amended) The method of claim 1 where classifying each task in one of the second set of groups includes:

classifying each of the one or more database sessions into one of a third set of groups based at least in part on one or more logon account attributes associated with that database session;

assigning one or more resource usage ranges to each group of the third set of groups;

for each of the one or more resource usage ranges, assigning a group from the second set of groups;

determining a recent resource usage of each database session; and

classifying each task in a group from the second set of groups corresponding to the resource usage range for a group from the third set of groups in which the database session that initiated that task is classified and that includes that database session's recent resource usage.

Claim 5. (original) The method of claim 4 where the recent resource usage is a current resource usage.

Claim 6. (original) The method of claim 4 where the recent resource usage is a measurement of processor and input/output usage during a preceding time period.

Claim 7. (original) The method of claim 6 where the preceding time period is 60 seconds.

Claim 8. (original) The method of claim 1 where the extent to which access is limited is recalculated periodically.

Claim 9. (previously amended) The method of claim 1 further comprising the step of: providing device driver access to the plurality of tasks in order of a priority based at least in part on the weight of the group from the first set of groups in which each task is classified and also based at least in part on the weight of the group from the second set of groups in which each task is classified.

Claim 10. (previously amended) A computer program, stored on a tangible storage medium, for scheduling access to processor resources of a database, the program comprising executable instructions that cause a computer to:

initiate one or more database sessions each in response to one or more user logons to the database;

initiate a plurality of tasks in response to commands received from the one or more database sessions;

classify each of the plurality of tasks into one of a first set of groups;

assign a weight to each group of the first set of groups;

classify each of the plurality of tasks into one of a second set of groups;

assign a weight to each group of the second set of groups;

select a first task from the plurality of tasks; and

limit the first task's access to processor resources of the database based at least in part on the weight of a group from the first set of groups in which the first task is classified and also based at least in part on the weight of a group from the second set of groups in which the first task is classified.

Claim 11. (previously amended) The computer program of claim 10 where the plurality of tasks are each classified into one of the first set of groups based at least in part on one

or more logon account attributes associated with the database session that initiated that task.

Claim 12. (previously amended) The computer program of claim 10 where the executable instructions that cause a computer to classify each of the plurality of tasks into one of the second set of groups include executable instructions that cause a computer to:

 classify each database session into one of a third set of groups based at least in part on one or more logon account attributes associated with that database session;

 assign one or more time periods to each group of the third set of groups;

 for each time period, assign a group of the second set of groups;

 determine the current time; and

 classify each task in a group of the second set of groups corresponding to the time period for a group of the third set of groups in which the database session that initiated that task is classified and that includes the current time.

Claim 13. (previously amended) The computer program of claim 10 where the executable instructions that cause a computer to classify each of the plurality of tasks into one of the first set of groups include executable instructions that cause a computer to:

 classify each of the one or more database sessions into one of a third set of groups based at least in part on one or more logon account attributes associated with that database session;

 associate each group in the third set of groups with one group from the first set of groups; and

 classify each task in a group of from the first set of groups that is associated with a group from the third set of groups in which the database session that initiated that task is classified.

Claim 14. (previously amended) The computer program of claim 10 where the executable instructions that cause a computer to classify each task in one of a second set of groups include executable instructions that cause a computer to:

 classify each of the one or more database sessions into one of a third set of groups based at least in part on one or more logon account attributes associated with that database session;

 assign one or more resource usage ranges to each group of the third set of groups; for each of the one or more resource usage ranges, assign a group from the second set of groups;

 determine a recent resource usage of each database session; and

 classify each task in a group of the second set of groups corresponding to the resource usage range for a group of the third set of groups in which the database session that initiated that task is classified and that includes that database session's recent resource usage.

Claim 15. (original) The computer program of claim 14 where the recent resource usage is a current resource usage.

Claim 16. (original) The computer program of claim 14 where the recent resource usage is a measurement of processor and input/output usage during a preceding time period.

Claim 17. (original) The computer program of claim 16 where the preceding time period is 60 seconds.

Claim 18. (original) The computer program of claim 10 where the extent to which access is limited is recalculated periodically.

Claim 19. (previously amended) The computer program of claim 10 where the executable instructions further cause a computer to:

 provide device driver access to the plurality of tasks in order of a priority based at least in part on the weight of the group from the first set of groups in which each task is classified and also based at least in part on the weight of the group from the second set of groups in which each task is classified.

Claim 20. (previously amended) A scheduled resource access database system, comprising:

one or more nodes;
a plurality of data-storage facilities, each of the one or more nodes providing access to one or more of the data-storage facilities;
a plurality of CPUs, each of the one or more nodes providing access to one or more of the CPUs;
a plurality of virtual processes, each of the one or more CPUs providing access to one or more of the virtual processes;
each virtual process configured to manage data stored in one of the plurality of data-storage facilities; and
a priority scheduler component configured to control access to the virtual processes by a plurality of sessions of the database system, the priority scheduler component configurable to classify tasks initiated by sessions in at least two different groups at the same time and limit access to the virtual processes by each task based at least in part on the at least two different groups in which that task is classified.

Claim 21. (previously amended) The database system of claim 20 further comprising a clock and where the priority scheduler component is configurable to classify a task initiated by a user into a group based at least in part on the time of day.

Claim 22. (previously amended) The database system of claim 20 further comprising a resource usage monitor that is configurable to record recent resource usage by one of the plurality of sessions and where the priority scheduler component is configurable to classify a task initiated by the one of the plurality of sessions in a group based at least in part on that session's recent resource usage.